



Case Study

Global Clients: ABN Amro Bank |
Barclays | Capita | Citigroup | DBS
Bank | GE Consumer Finance |
HBOS | HDFC Bank | TransUnion |
True Credit | UOB Bank | Vodafone
| Wausau Financial Systems

Background

The customer is one of the largest banks in Asia Pacific. They are undertaking a major transformational initiative to replace the core-banking platform in Singapore and Hong Kong. The erstwhile Core Banking Platform (CBP), Systematics is being replaced by Finacle and as part of the change, replacing the earlier Data Warehouse with a new Business Data Warehouse (BDW). This move was expected to redefine the way the bank is doing business regionally and will create opportunities for growth across the bank.

Given the strategic importance of this initiative, they engaged Saksoft for carrying out System Integration Testing of Business Data warehouse (BDW).

Requirement

Complete SIT of the BDW and its individual components as listed below:

- § BDW Integration: This functional area details all incoming and outgoing interface files to and from the BDW, including core and non-core systems.
- § Business Presentation Layer: BPL Tables/Views are populated taking inputs from upstream process and BDW. Testing scope will include tests to ensure successful population of data from the source (BDW tables) to target (BPL)



- § Data Marts are business specific views of the BDW data primarily used for business areas with specific data and business requirements. This functional area produces business/Mart specific interface files from BDW to feed data to the downstream mart.
- § Regulatory Reports and MIS reporting: This functional area produces business specified reports as per regulatory/ legal/ compliance requirements or for

Monitoring day-to-day functioning of the business. Testing scope will involve testing report layouts, report features like ability to export the reports to Excel or PDF, report business logic, report retrieval performance and end to end reconciliation testing for a sample set of reports.

- Conversion Testing: Verify the compatibility of the converted programs, data and procedures with those from the existing systems that are being converted or replaced.
- Regression Testing: Existing data from Legacy systems are being migrated to BDW as part of CBP. Saksoft will verify this through regression testing once data is available in BDW.
- GLM: This is the primary General Ledger system of the Bank. There are significant numbers of inputs into GLM and from GLM to PSGGL; the process flow of which needs to be tested thoroughly.



The Solution

Saksoft conducted an initial study with the business and the technical users in Singapore to ascertain the scope and boundaries of the BDW with regard to the SIT. A comprehensive Test Strategy Document (TSD) was presented to on the approach, methodology and the

project plan on the acceptance of which the project was started. The TSD also covered a high level plan which synced with the overall release and project plan. All processes and templates are compliant with Saksoft CMMI Level-5 processes.

Saksoft proposed an onsite-offshore model, with the testing team comprising of both traditional testers, as well as Database specialists who had a thorough understanding of Data Warehouse, its components and functioning. This team was lead by seasoned DWH seniors and banking domain experts.

The detailed study was conducted onsite, the deliverable for which was the business test scenarios for each component of the BDW. These were reviewed and signed off by the business and technology user groups, after which all work was shifted offshore, to expand the scenarios to detailed test cases and scripts.

Separate teams were formed for individual components of the BDW. These teams were responsible for the complete testing of the particular component. Some of these test scenarios/cases were combined with scenarios/cases from other components to create end-to-end scenarios which would test traceability from source (e.g. a feed file) to output (e.g. a BO report) as well as complex business rules and processes. This approach ensures breadth as well as depth of testing.



Since the test cases have embedded SQL scripts (called Integrity SQLs), which test the source vs. target data in a component of the DWH, the test execution process tends to be complex as well as time consuming. So custom automation scripts were built using PLSQL, UNIX shell and AWK scripts, which would execute a series of related test scripts at scheduled times, record results, compare them and report success/failure/defects.



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